

**Notice of Allowability**

Application No.

10/762,428

Applicant(s)

MARTIN ET AL.

Examiner

Kandasamy Thangavelu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 21 August, 2007.
2. ☒ The allowed claim(s) is/are 1-49.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892).
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 8/21/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## **DETAILED ACTION**

### ***Introduction***

1. This communication is in response to the Applicants' communication dated August 21, 2007. Claims 1, 10, 20, 30 and 40 were amended. Claims 1-49 of the application are pending.

### ***Information Disclosure Statement***

2. Acknowledgment is made of the information disclosure statements filed on August 21, 2007 together with copies of the papers and list of patents. The patents and papers have been considered.

### ***Replacement Drawings***

3. The replacement drawings submitted on August 21, 2007 are accepted.

### ***Reasons for Allowance***

4. Claims 1-49 of the application are allowed over prior art of record.

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5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) a software architecture for allowing a user to easily create measurement and automation tasks, verify functionality and easily create application code to implement desired tasks; the system may include a computer system and one or more measurement devices; the measurement devices may include a measurement hardware device, a virtual measurement device or other type of device; the system may also include a device and resource configuration tool to receive user input to set system configuration parameters for the measurement devices; a measurement task specifier may generate a measurement task specification for a measurement task in response to user input; an expert system may be used to analyze the generated measurement task specification, validate the specification and generate a run time specification; a run time builder may be used to analyze the run-time specification, configure the measurement devices and generate a run-time executable to perform the measurement task; the system may store a plurality of measurement primitives, each comprising a software object with configuration settings; each primitive implements a portion of the measurement task; the run-time builder generates the run-time executive using measurement primitives; the measurement task configuration tool may be an interactive GUI program to enable the user to select various parameters (Schmit et al., U.S. Patent 6,965,800);

(2) a method of visualizing, defining and acquiring requirement in developing an application using a computer; components forming a development object are arranged on a scenario editor on a computer, by using basic component parts; a procedure call sequence is

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defined by specifying procedures of defined components in order of call; the call sequence data is generated in the computer as scenario data; the defined group of scenarios are selected and reflected on the model editor; a whole requirement is created; a procedure name to be called subsequently on the connection line between components is acquired from the defined procedure sequence data, and a program for animation is generated; by executing the animation program, the procedure call sequence is displayed in the animation form and the requirement is created; by interactive operation of the screen using the scenario editor and the model editor, the requirement of the development subject can be acquired from the customer and the whole requirement created (**Mashita et al.**, U.S. Patent Application 2001/0002834); and

(3) computer based virtual models of complex systems, together with integrated systems and methods provide a development and execution framework for visual modeling and dynamic simulation of said models; the virtual models can be used for analysis, monitoring or control of the operation of the complex systems and for information retrieval; the virtual models in an implementation relate to biological systems; the virtual models then comprise building blocks representing physical, chemical or biological processes, pools of entities that participate in those processes and a hierarchy of compartments representing time-intervals or spatial/functional structure of complex systems in which the entities are located and the processes take place (**Thalhammer-Reyero**, U.S. Patent 6,983,227).

Additional state of the art reviewed and considered by the Examiner is found in U.S. Patent Application 2002/0054051; U.S. Patent 5,991,533; U.S. Patent Application 2002/0108101; U.S. Patent 7,146,615; U.S. Patent 6,968,539; Sung et al., "A top-down approach

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to teaching introductory computer graphics”, ACM, 2003; Koshizuka et al., “Windows real-objects: A distributed shared memory for distributed implementations of GUI applications”, ACM 1993; Nabavi, R., “APL windowing systems- Where next?”, ACM 1989.

None of these references taken either alone or in combination with the prior art of record discloses a method of providing a user with a programming environment for programming of a simulation of a computer application, specifically including:

(Claim 1) “displaying on a computer display a programming area comprising one or more graphical representations of one or more primitives for programming of the simulation of the computer application;

receiving control indications from the user to arrange the one or more primitives to program the simulation;

displaying on the computer display a requirements area comprising one or more requirements, wherein the programming area and the requirements area are displayed at the same time;

associating the one or more primitives with the one or more requirements such that a primitive displayed in the programming area is visually associated with a displayed requirement of the requirements area”.

None of these references taken either alone or in combination with the prior art of record discloses a method of providing a user with a programming environment for programming of a simulation of a computer application, specifically including:

(Claim 10) “displaying on an electronic display a programming area comprising one or more graphical representations of one or more primitives for programming of the simulation of the computer application;

receiving control indications from the user to arrange the one or more primitives to program the simulation;

displaying on the electronic display a requirements area comprising one or more statements, where a statement describes a desired behavior for a primitive, wherein the programming area and the requirements area are displayed at the same time;

associating the one or more primitives with the one or more statements such that a primitive displayed in the programming area is associated with a displayed statement of the requirements area”.

None of these references taken either alone or in combination with the prior art of record discloses a computer system that provides a user with a programming environment for programming of a simulation of a computer application, specifically including:

(Claim 20) “a component configured to display on an electronic display a programming area comprising one or more graphical representations of one or more primitives for programming of the simulation of the computer application;

a component configured to receive control indications from the user to arrange the one or more primitives to program the simulation;

a component configured to display on the electronic display a requirements area comprising one or more statements, where a statement describes a desired behavior for a

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primitive, wherein the programming area and the requirements area are displayed at the same time;

a component configured to associate the one or more primitives with the one or more statements such that a primitive displayed in the programming area is associated with a displayed statement of the requirements area”.

None of these references taken either alone or in combination with the prior art of record discloses a computer system that provides a user with a programming environment for programming of a simulation of a computer application, specifically including:

(Claim 30) “a means for displaying on an electronic display a programming area comprising one or more graphical representations of one or more primitives for programming of the simulation of the computer application;

a means for receiving control indications from the user to arrange the one or more primitives to program the simulation;

a means for displaying on the electronic display a requirements area comprising one or more statements, where a statement describes a desired behavior for a primitive. wherein the programming area and the requirements area are displayed at the same time;

a means for associating the one or more primitives with the one or more statements such that a primitive displayed in the programming area is associated with a displayed statement of the requirements area”.

None of these references taken either alone or in combination with the prior art of record discloses a computer program embodied in a computer-readable storage medium for providing a user with a programming environment for programming of a simulation of a computer application, specifically including:

(Claim 40) “instructions for displaying on an electronic display a programming area comprising one or more graphical representations of one or more primitives for programming of the simulation of the computer application;

instructions for receiving control indications from the user to arrange the one or more primitives to program the simulation;

instructions for displaying a requirements area comprising one or more statements, where a statement describes a desired behavior for a primitive;

instructions for associating the one or more primitives with the one or more statements such that a primitive displayed in the programming area is associated with a displayed statement of the requirements area”.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.”

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is



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571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



K. Thangavelu  
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October 26, 2007